UTAH DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS CENTER
MONTHLY REPORT JUNE 2003

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Field Devices Summary

Freeway Closed Circuit Television (CCTV)	163
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	**230**
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	**62**
HAR (6 deployed, 5 portable units)	11
TMS	231
RWIS	52
Connected Traffic Signals	613
Connected Ramp Meters	23

UDOT was host to the 2003 WASHTO Conference.

Operations Summary

VMS Messages Displayed	381
Signal Timing Calls	41
Signal Maintenance Calls	299
New Work Orders	393
Incident Responses	583
Website Visitor Sessions	55,612
511 Calls	13,253
Email Alerts Sent	524
CommuterLink Questions	16

KUDOS!

Congratulations to all the partner agencies involved in the Regionally Operated, Integrated Traffic Signal System for winning the Intelligent Transportation Society of America's 2003 Best of ITS Award for Partnership Deployment.

TOC Employee of the Month

Joe McBride
TOC Asset Management Engineer

TOC Mission

1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. A delegation from the Utah State Legislature stopped by the TOC for a tour. John Njord, Carlos Braceras, and Linda Troy Hull hosted the tour for the legislature. They were very interested to see the operations at the TOC.
2. Members from the Illinois Lake County DOT visited the TOC. Lake County is currently in the planning stages of building their own TOC, and wanted to get as much insight as possible from one of the best control centers in the nation.
3. UDOT was host for the 82nd Annual Western Association of State Highway and Transportation Officials (WASHTO) Conference. WASHTO represents departments in the eighteen western states. Its primary goal is to contribute to national transportation policies, work with the U.S. Department of Transportation and other government agencies, and provide a forum for exchanging ideas and techniques. A group of 35 WASHTO delegates toured the TOC.
4. Several new faces can be seen around the TOC. Michael Heaps and Barry Bunderson are Civil Engineering summer interns. Michael is working with Chris Siavrakas, and has been focusing on the new Usauna Amphitheater, and how it affects traffic in West Valley. Barry is working under the direction of Joe McBride. He is currently marking all overhead lighting locations with the new sub-meter GPS unit, this will help the TOC inventory all overhead lights, as well as provide a means to do so. Brandon Cloward is a new TransCore employee and will be working at the *icons*™ desk, as well as in the field with the Timing Group. Many have seen Ralph Patterson working at the Weather Desk. Ralph has accepted a position with UDOT as the Road Weather Information System (RWIS) and Weather Operations Manager.
5. The Annual TOC Barbeque was held on the 30th of June. This year's theme was a luau with entertainment provided by Teo Poly Productions and catering by Red Flame. John Njord presented Dave Kinnecom, Richard Manser, and Carol Groustra with a "Best of ITS Award" from Intelligent Transportation Society of America. This is the second year UDOT has received one of these prestigious award.
6. Dave Kinnecom has been elected to the grade of fellow in ITE. The grade of fellow is given to those transportation professionals who meet strict requirements in the areas of professional experience, level of responsibility, professional registration, and peer evaluation.

ATMS Improvement and Expansion Activities

The following is a list of many of the projects that have either been completed, or are currently underway:

Region 1:

- The fiber-optic installation along I-15 has been completed. A few remaining sections of fiber need to be installed to complete the connection between Regions 1 and 2.

Region 2:

- Work is continuing in the 12300 South and I-15 area (pictured to right). Upon completion, this section will provide communication to all ATMS devices south of Hub 12, approximately 11400 South through Region 3. It will also aid in bridging the gap between Regions 2 and 3.
- The concept design for installing wireless radios and antennas on traffic signals in the vicinity of the West Valley Amphitheater has been completed. Communications to these signals will enable the TOC to change timing plans for events at the amphitheater without having to travel to the various intersections.

Region 3:

- Work is continuing on the integration of the Region 3 headquarters with the TOC via a dedicated fiber-optic backbone and 100 MB radio link. A basic data connection between Region 3 and the TOC is scheduled to be completed in mid July.
- A Concept design is currently being developed for providing a backbone interconnect between the new Region 3 Hub, Orem City and Provo City. The design is intended to integrate all agencies onto the CommuterLink network and convert existing field devices onto the shared network.

Instillation of a radio antenna at the POM.

Region 4:

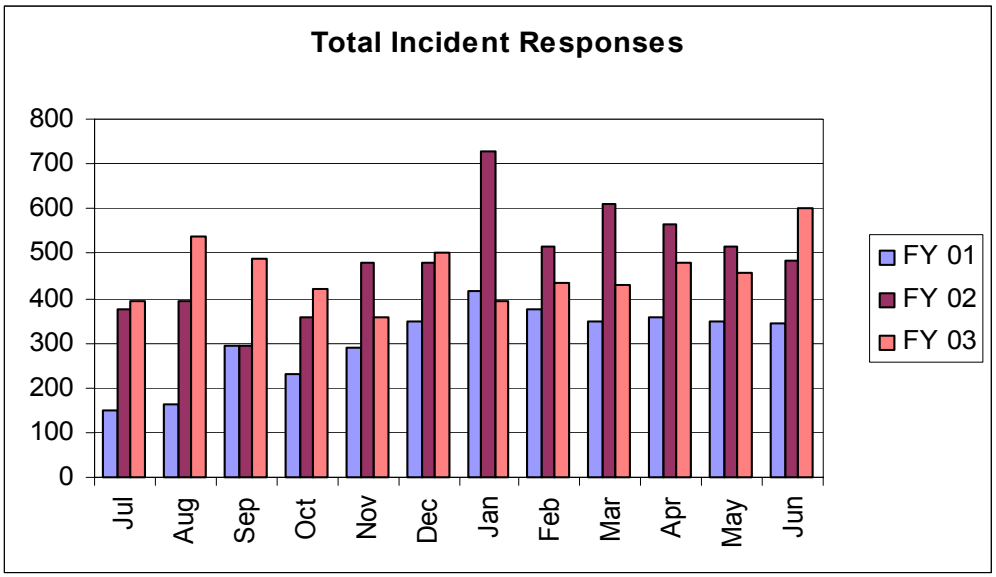
- The design is currently underway for an *icons*™ server in the St. George and Richfield area. The server is scheduled to be deployed in October of 2003.

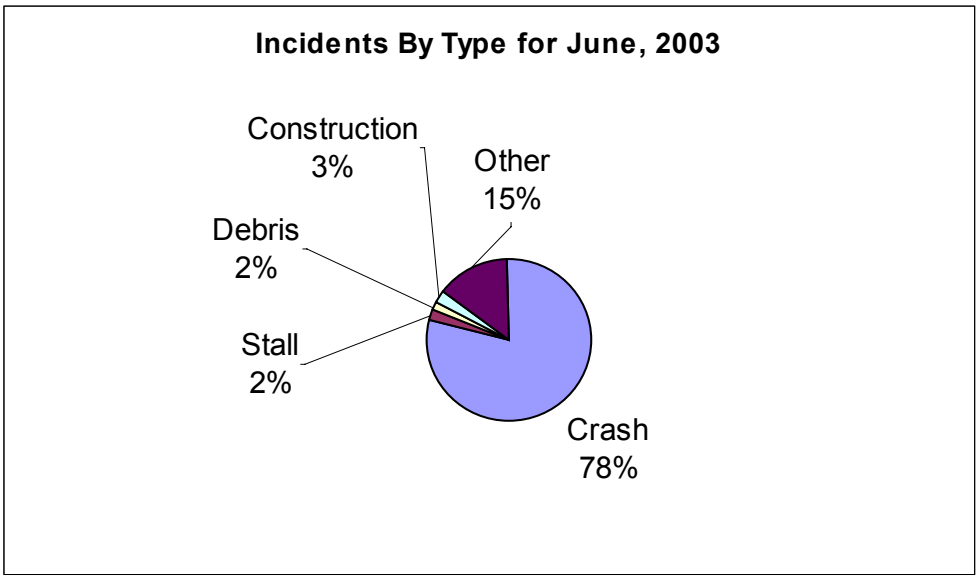
Acronyms

ATMS Advanced Traffic Management System	NTCIP National Transportation Communications for ITS Protocol
CCTV Closed Circuit Television	TMS Traffic Monitoring Station (count station)
DPS Department of Public Safety	TOC Traffic Operations Center
HAR Highway Advisory Radio	TTI Travel Time Index
RWIS Road-Weather Information System	VMS Variable Message Sign

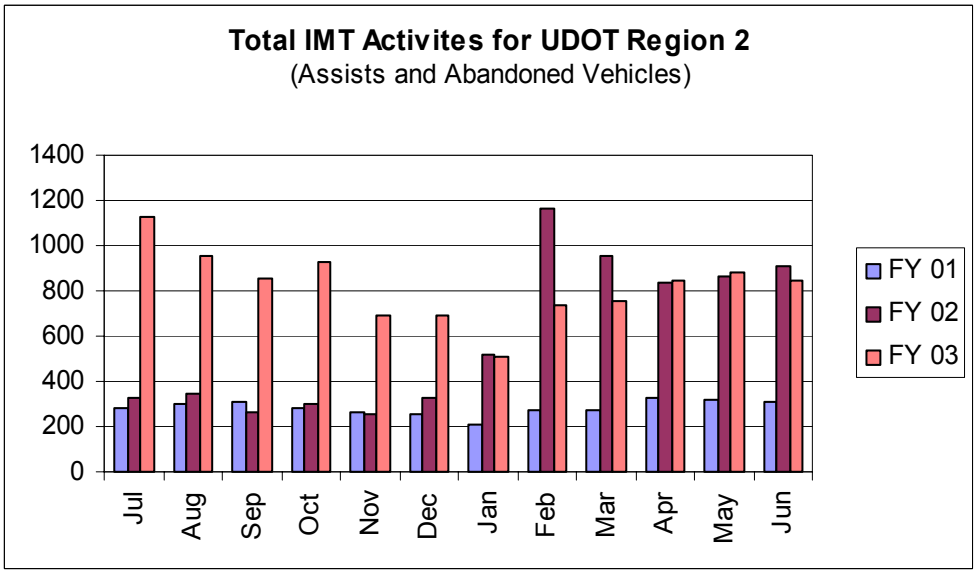
Safety

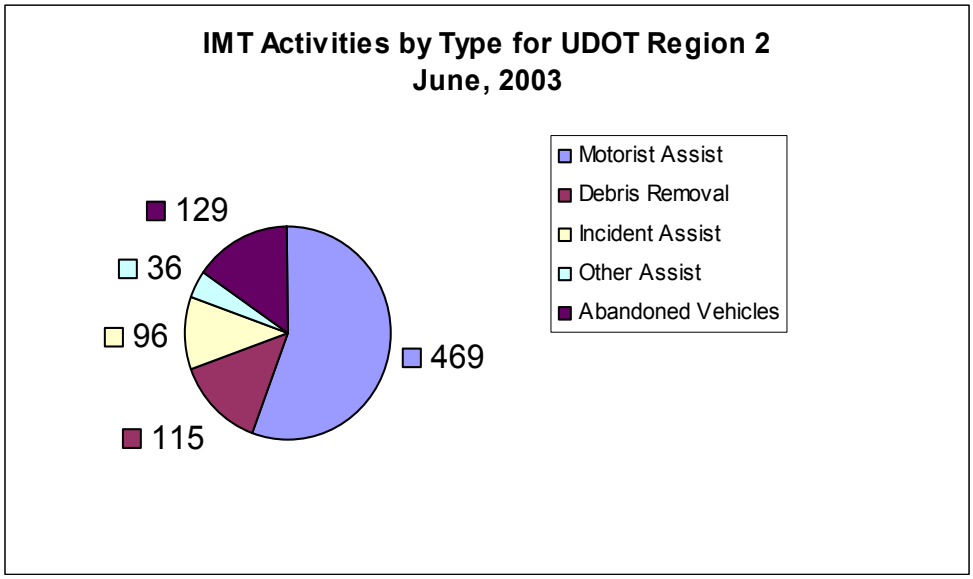
An incident response is an incident recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Each time an incident is created information is sent to the 511 system, the website, and email alerts are generated.





Region 2 Incident Management Team (IMT) Activities





Freeway Traffic Level of Service

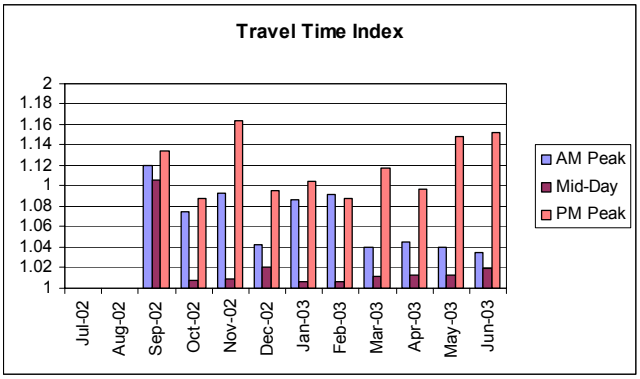
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

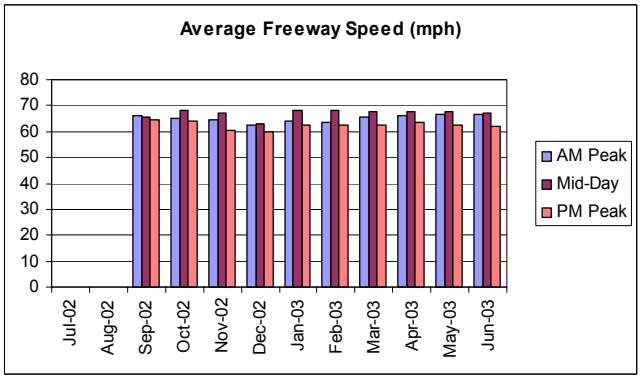
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of one (1) represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

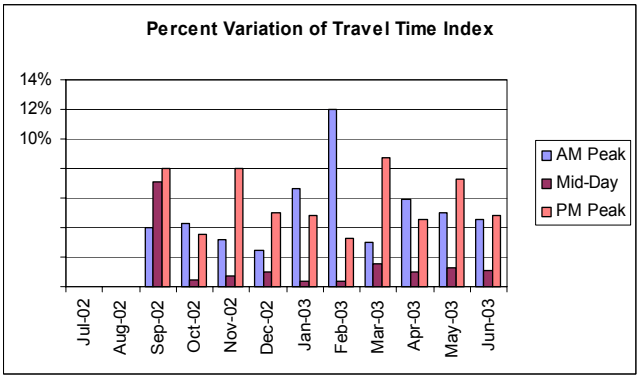
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time index changes from day-to-day.

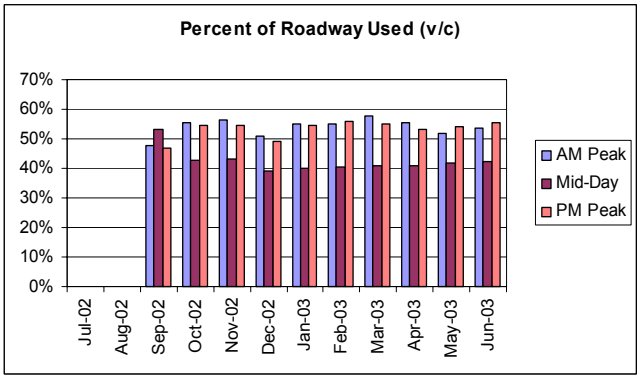
Average Freeway Speed: The Freeway Speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).









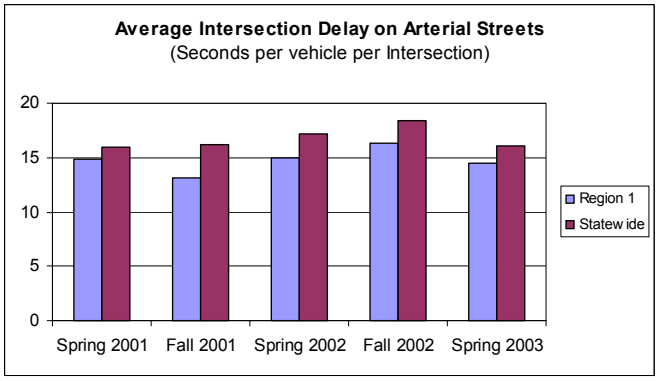
The 5 links with the highest average Travel Time Index for the month are:

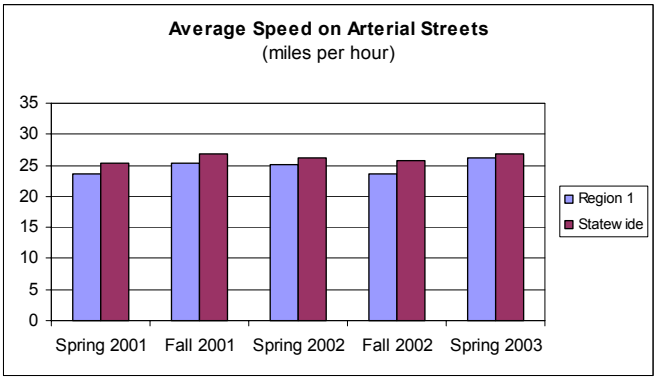
Segment	Period	AvgOfTTI
I-15 NB from 600 N to I-215 W	PM Peak	1.79
I-215 S WB from Knudsen's Corner to I-15	AM Peak	1.21
I-215 S WB from Knudsen's Corner to I-15	PM Peak	1.19
I-15 SB from 4500 S to I-215 S	PM Peak	1.16
SR-201 EB from I-215 W to I-15	PM Peak	1.15

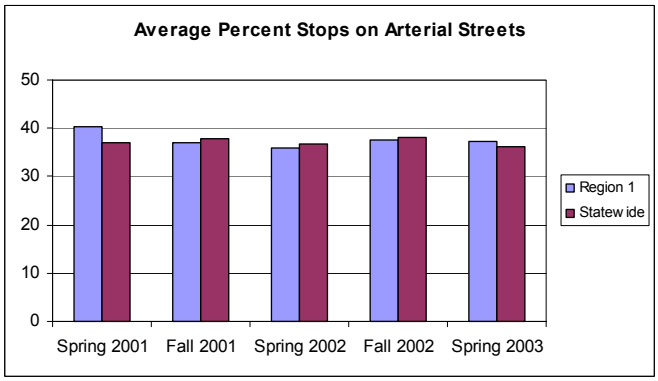
Surface Street Traffic Level of Service

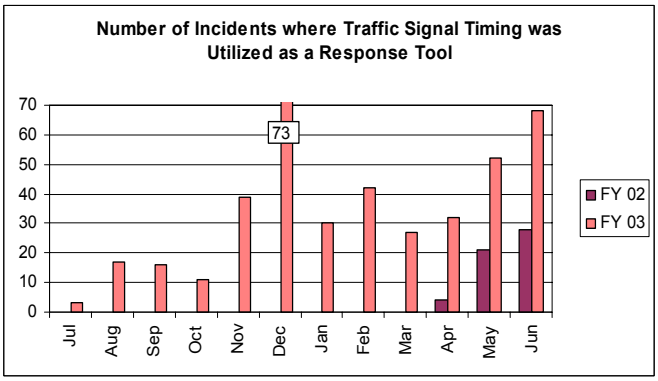
The surface street statistics are generated through a series of Travel Time measurements. Much can be learned through several runs along a corridor, including the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Statewide Timing group gathers these measurements from Regions 1-4 twice each year. The chart in the lower right corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help flush out excessive congestion.

Since the data is gathered semi-annually, this monthly report will provide charts for one region each month compared to the statewide average. The charts below represent Region 1 compared to the Statewide Average.

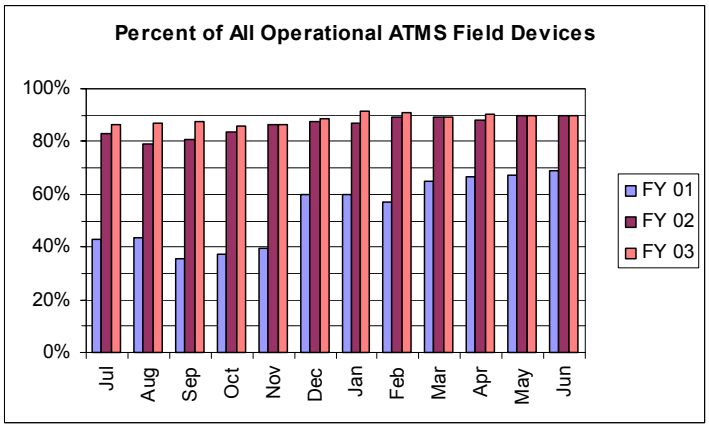


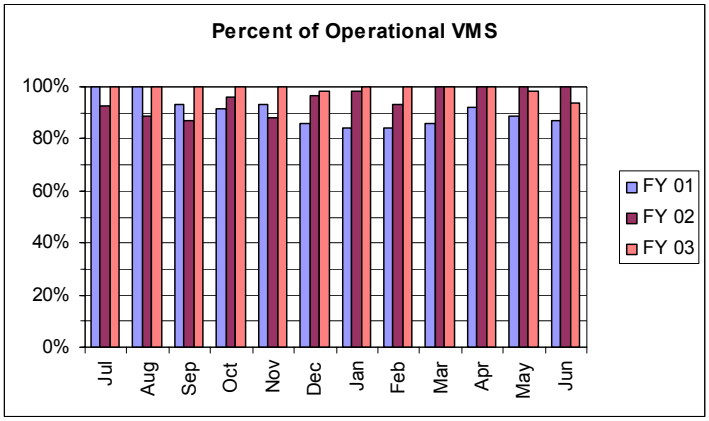


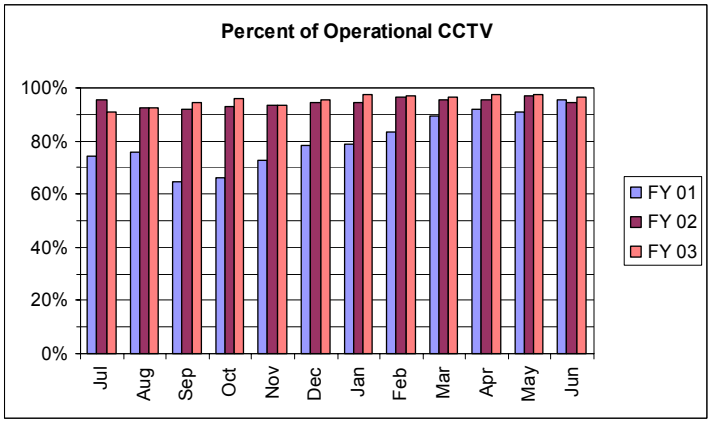


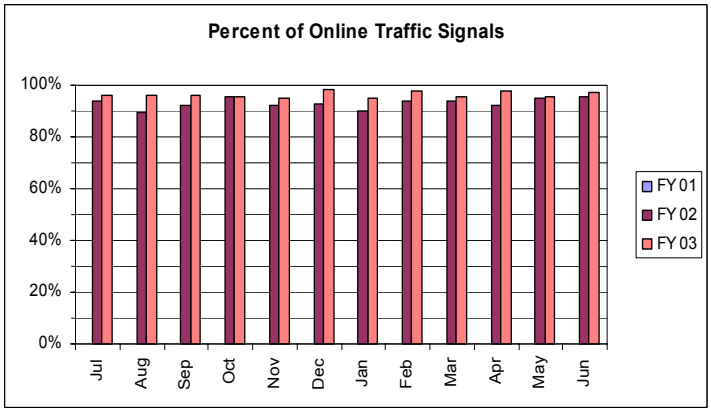


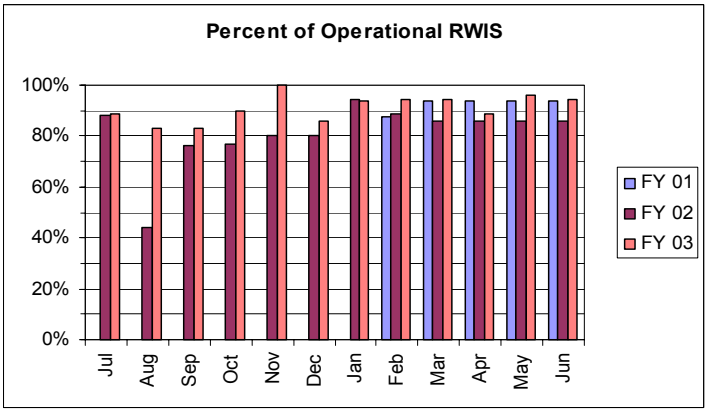
Maintenance

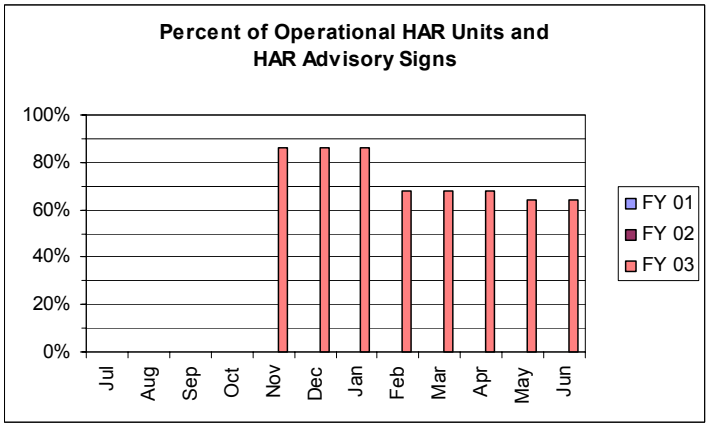


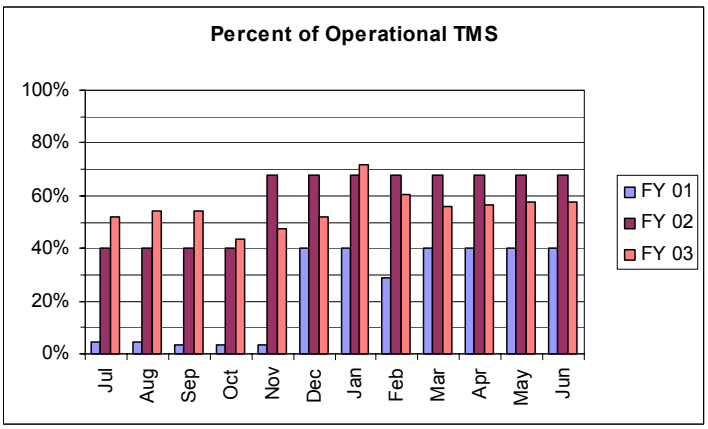




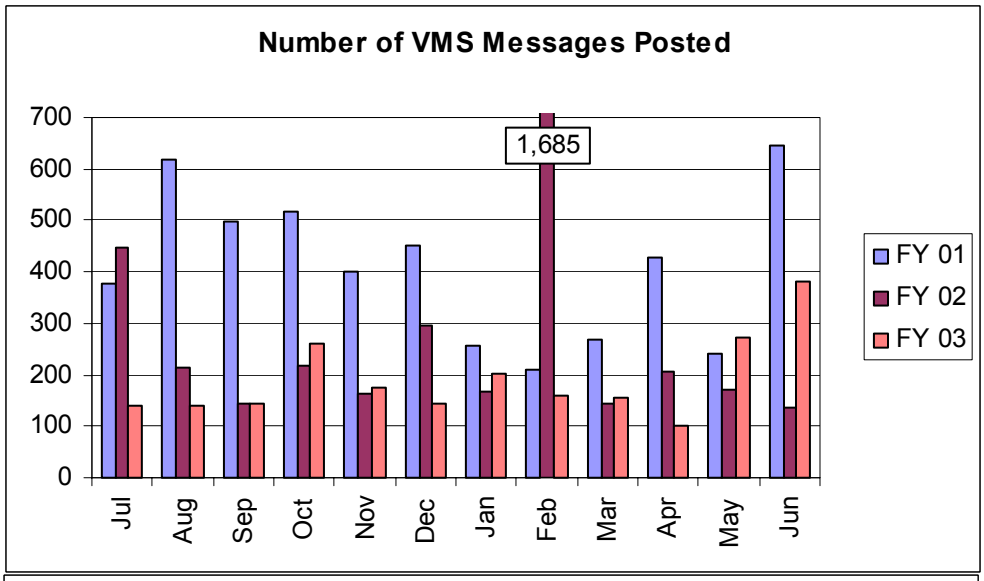


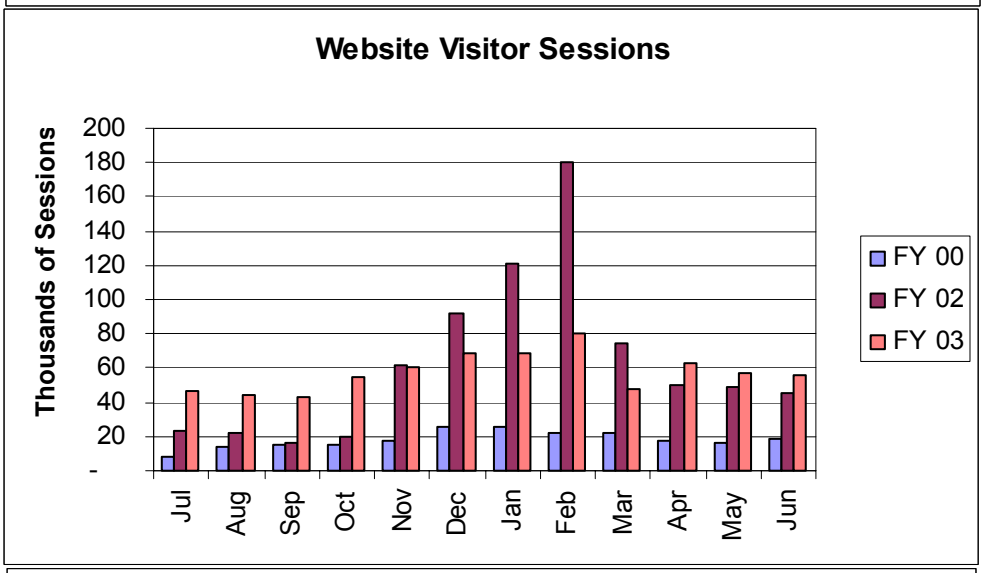


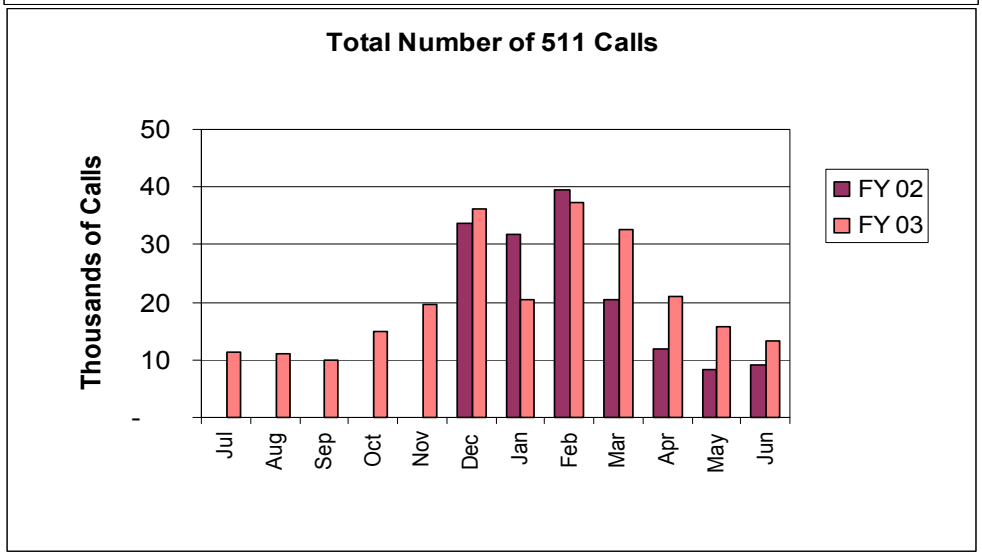




Traveler Information







Customer Service